

LISTING OF CLAIMS:

1-26. (Canceled)

27. (Currently amended): A backlight device, comprising:

a two dimensional array of point light sources; and

a light guide plate comprising a first surface facing the array of point light sources and a second surface emitting light passing through the light guide plate, wherein the first surface comprises a two dimensional array of convex structures, with each convex structure aligned with a point light source in the array of point light sources, wherein each convex structure has a dome-shaped recess directly facing each point light source.

28. (Previously presented): The backlight device as in claim 27, wherein the two dimensional array of convex structures comprises convex structures distributed uniformly in both dimensions on the first surface of the light guide plate.

29. (Previously presented): The backlight device as in claim 27, wherein the two dimensional array of convex structures comprises convex structures distributed in a two dimensional matrix across plane of the first surface of the light guide plate.

30. (Previously presented): The backlight device as in claim 27, wherein the first surface further comprises a planar surface from which the convex structures extend.

31. (Canceled)

32. (Currently amended): The backlight device as in claim 27, wherein each point light source is not entirely received in the corresponding dome-shaped recess of the convex structure.

33. (Currently amended): The backlight device as in claim 27, wherein at least a portion of each point light sources remains outside the corresponding dome-shaped recess of the convex structure.

34. (Previously presented): The backlight device as in claim 27, wherein the point light sources are positioned relative to the convex structures such that light emitted from the point light sources are substantially received through the convex structure.

35. (Previously presented): The backlight device as in claim 34, wherein the point light sources are juxtaposed to the convex structure.

36. (Previously presented): The backlight device as in claim 27, wherein the two dimensional array of point light source comprises a two dimensional array of LEDs.

37. (Previously presented): The backlight device as in claim 36, wherein the two dimensional array of LEDs are supported on a back plate.

38. (Canceled)

39. (Previously presented): The backlight device as in claim 27, wherein the convex structure has at least one of a frustum shape or a truncated cone shape.

40. (Previously presented): The backlight device as in claim 27, wherein the convex structure has a proximal end portion and a distal end portion directly facing a corresponding point light source in the array of point light sources, and wherein cross-section of the convex structure reduces in area from the proximal end portion to the distal end portion.

41. (Previously presented): The backlight device as in claim 40, wherein the cross-section of the convex structure at the distal end portion is at least one of a circular shape, hexagon shape or another polygon shape.

42. (Previously presented): The backlight device as in claim 40, wherein the cross-section of the convex structure at the proximal end portion is at least one of a circular shape, hexagon shape or another polygon shape.

43. (Previously presented): The backlight device as in claim 40, wherein the point light sources are juxtaposed to the distal end portion of the convex structure.

44. (Previously presented): The backlight device as in claim 42, wherein the point light sources are positioned relative to the convex structures such that light emitted from the point light sources are substantially received through the convex structure.

45. (Previously presented): The backlight device as in claim 27, wherein the backlight device further comprises a diffusion sheet disposed adjacent the second surface.

46. (Previously presented): The backlight device as in claim 27, wherein the second surface comprises a light guide pattern.

47. (Previously presented): The backlight device as in claim 46, wherein the light guide pattern is at least one of jagged or uneven surface.

48. (Previously presented): The backlight device as in claim 27, wherein material of the light guide plate comprises at least one of polymethylmethacrylate (PMMA), polycarbonate, or a combination thereof.

49. (Previously presented): An LCD device, comprising:
a backlight device as in claim 27; and
an LCD panel positioned relative to the light emitting surface, receiving light emitted from the light emitting surface.

50. (Previously presented): The LCD device as in claim 49, further comprising a diffusion sheet disposed between the LCD panel and the second surface of the backlight device.

51. (Currently amended): A backlight device, comprising:

a two dimensional array of point light sources; and

a planar light guide plate comprising a first surface facing the array of point light sources and a second surface emitting light passing through the light guide plate, wherein the first surface comprises a two dimensional array of protrusions, with each protrusion aligning with a point light source in the array of point light sources, wherein each protrusion has a dome-shaped recess directly facing each point light source.

52. (Previously presented): The backlight device as in claim 51, wherein the protrusions comprises convex structures.